

SEQUENCE LISTING

<110> ISHIGURO, Koichi
SATO, Kazuki
PARK, Jun-Mi
UCHIDA, Tsuneko
IMAHORI, Kazutomo

<120> ANTI-PHOSPHORYLATED TAU PROTEIN ANTIBODIES AND METHODS
FOR DETECTING ALZHEIMER'S DISEASE WITH THE USE OF THE
SAME

<130> 98-0997*/LC(WMC)/1416

<140> 09/142,613

<141> 1999-04-19

<160> 22

<170> PatentIn Ver. 2.0

<210> 1

<211> 441

<212> PRT

<213> Homo sapiens

<400> 1

Met Ala Glu Pro Arg Gln Glu Phe Glu Val Met Glu Asp His Ala Gly
1 5 10 15

Gln Asp Thr Tyr Gly Leu Gly Asp Arg Lys Asp Gln Gly Gly Tyr Thr
20 25 30

Met His Gln Glu Gly Asp Thr Asp Ala Gly Leu Lys Glu Ser Pro Leu
35 40 45

Gln Thr Pro Thr Glu Asp Gly Ser Glu Glu Pro Gly Ser Glu Thr Ser
50 55 60

Asp Ala Lys Ser Thr Pro Thr Ala Glu Asp Val Thr Ala Pro Leu Val
65 70 75 80

Asp Glu Gly Ala Pro Gly Lys Gln Ala Ala Ala Gln Pro His Thr Glu
85 90 95

Ile Pro Glu Gly Thr Thr Ala Glu Glu Ala Gly Ile Gly Asp Thr Pro
100 105 110

Ser Leu Glu Asp Glu Ala Ala Gly His Val Thr Gln Ala Arg Met Val
115 120 125

Ser	Lys	Ser	Lys	Asp	Gly	Thr	Gly	Ser	Asp	Asp	Lys	Lys	Ala	Lys	Gly
130						135					140				
Ala	Asp	Gly	Lys	Thr	Lys	Ile	Ala	Thr	Pro	Arg	Gly	Ala	Ala	Pro	Pro
145					150					155					160
Gly	Gln	Lys	Gly	Gln	Ala	Asn	Ala	Thr	Arg	Ile	Pro	Ala	Lys	Thr	Pro
				165					170					175	
Pro	Ala	Pro	Lys	Thr	Pro	Pro	Ser	Ser	Gly	Glu	Pro	Pro	Lys	Ser	Gly
			180					185					190		
Asp	Arg	Ser	Gly	Tyr	Ser	Ser	Pro	Gly	Ser	Pro	Gly	Thr	Pro	Gly	Ser
		195					200					205			
Arg	Ser	Arg	Thr	Pro	Ser	Leu	Pro	Thr	Pro	Pro	Thr	Arg	Glu	Pro	Lys
	210					215					220				
Lys	Val	Ala	Val	Val	Arg	Thr	Pro	Pro	Lys	Ser	Pro	Ser	Ser	Ala	Lys
225					230					235					240
Ser	Arg	Leu	Gln	Thr	Ala	Pro	Val	Pro	Met	Pro	Asp	Leu	Lys	Asn	Val
				245					250					255	
Lys	Ser	Lys	Ile	Gly	Ser	Thr	Glu	Asn	Leu	Lys	His	Gln	Pro	Gly	Gly
			260					265					270		
Gly	Lys	Val	Gln	Ile	Ile	Asn	Lys	Lys	Leu	Asp	Leu	Ser	Asn	Val	Gln
		275					280					285			
Ser	Lys	Cys	Gly	Ser	Lys	Asp	Asn	Ile	Lys	His	Val	Pro	Gly	Gly	Gly
	290					295					300				
Ser	Val	Gln	Ile	Val	Tyr	Lys	Pro	Val	Asp	Leu	Ser	Lys	Val	Thr	Ser
305					310					315					320
Lys	Cys	Gly	Ser	Leu	Gly	Asn	Ile	His	His	Lys	Pro	Gly	Gly	Gly	Gln
				325					330					335	
Val	Glu	Val	Lys	Ser	Glu	Lys	Leu	Asp	Phe	Lys	Asp	Arg	Val	Gln	Ser
			340					345					350		
Lys	Ile	Gly	Ser	Leu	Asp	Asn	Ile	Thr	His	Val	Pro	Gly	Gly	Gly	Asn
		355					360					365			
Lys	Lys	Ile	Glu	Thr	His	Lys	Leu	Thr	Phe	Arg	Glu	Asn	Ala	Lys	Ala
	370					375					380				
Lys	Thr	Asp	His	Gly	Ala	Glu	Ile	Val	Tyr	Lys	Ser	Pro	Val	Val	Ser
385					390					395					400

Gly Asp Thr Ser Pro Arg His Leu Ser Asn Val Ser Ser Thr Gly Ser
405 410 415

Ile Asp Met Val Asp Ser Pro Gln Leu Ala Thr Leu Ala Asp Glu Val
420 425 430

Ser Ala Ser Leu Ala Lys Gln Gly Leu
435 440

<210> 2
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Partial
peptide of Tau protein

<220>
<221> PHOSPHORYLATION
<222> (6)
<223> Xaa=phosphoserine

<400> 2
Lys Ser Gly Tyr Ser Xaa Pro Gly Ser Pro Gly Thr
1 5 10

<210> 3
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Partial
peptide of Tau protein

<220>
<221> PHOSPHORYLATION
<222> (6)
<223> Xaa=phosphoserine

<400> 3
Lys Ser Ser Pro Gly Xaa Pro Gly Thr Pro Gly Ser Arg
1 5 10

<210> 4
<211> 12

<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Partial
peptide of Tau protein

<220>
<221> PHOSPHORYLATION
<222> (7)
<223> Xaa=phosphothreonine

<400> 4
Cys Pro Gly Ser Pro Gly Xaa Pro Gly Ser Arg Ser
1 5 10

<210> 5
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Partial
peptide of Tau protein

<220>
<221> PHOSPHORYLATION
<222> (6)
<223> Xaa=phosphoserine

<400> 5
Lys Ser Xaa Pro Gly Xaa Pro Gly Thr Pro Gly Ser Arg
1 5 10

<210> 6
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Partial
peptide of Tau protein

<220>
<221> PHOSPHORYLATION
<222> (7)
<223> Xaa=phosphothreonine

<400> 6

Cys Val Ala Val Val Arg Xaa Pro Pro Lys Ser Pro Ser Ser
1 5 10

<210> 7
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Partial
peptide of Tau protein

<220>
<221> PHOSPHORYLATION
<222> (7)
<223> Xaa=phosphoserine

<400> 7
Cys Arg Thr Pro Pro Lys Xaa Pro Ser Ser Ala Lys
1 5 10

<210> 8
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Partial
peptide of Tau protein

<220>
<221> PHOSPHORYLATION
<222> (7)
<223> Xaa=phosphoserine

<400> 8
Cys Arg Thr Pro Pro Lys Xaa Pro Ser Ala Ser Lys
1 5 10

<210> 9
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Partial
peptide of Tau protein

<220>
<221> PHOSPHORYLATION
<222> (3)
<223> Xaa=phosphothreonine

<220>
<221> PHOSPHORYLATION
<222> (7)
<223> Xaa=phosphoserine

<400> 9
Cys Arg Xaa Pro Pro Lys Xaa Pro Ser Ser Ala Lys
1 5 10

<210> 10
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Partial
peptide of Tau protein

<220>
<221> PHOSPHORYLATION
<222> (7)
<223> Xaa=phosphoserine

<400> 10
Cys Lys Ser Lys Ile Gly Xaa Thr Glu Asn Leu Lys
1 5 10

<210> 11
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Partial
peptide of Tau protein

<220>
<221> PHOSPHORYLATION
<222> (7)
<223> Xaa=phosphoserine

<400> 11
Cys Glu Ile Val Tyr Lys Xaa Pro Val Val Ser Gly
1 5 10

<210> 12
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Partial
peptide of Tau protein

<220>
<221> PHOSPHORYLATION
<222> (7)
<223> Xaa=phosphoserine

<400> 12
Cys Val Ser Gly Asp Thr Xaa Pro Arg His Leu Ser
1 5 10

<210> 13
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Partial
peptide of Tau protein

<220>
<221> PHOSPHORYLATION
<222> (7)
<223> Xaa=phosphoserine

<400> 13
Lys Leu Ser Asn Val Ser Xaa Thr Gly Ser Ile Asp
1 5 10

<210> 14
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Partial
peptide of Tau protein

<220>
<221> PHOSPHORYLATION

<222> (7)

<223> Xaa=phosphoserine

<400> 14

Cys Ile Asp Met Val Asp Xaa Pro Gln Leu Ala Thr
1 5 10

<210> 15

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Partial
peptide of Tau protein

<220>

<221> PHOSPHORYLATION

<222> (6)

<223> Xaa=phosphoserine

<400> 15

Lys Leu Ser Asn Val Xaa Ser Thr Gly Ser Ile Asp
1 5 10

<210> 16

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Partial
peptide of Tau protein

<220>

<221> PHOSPHORYLATION

<222> (6)

<223> Xaa=phosphoserine

<220>

<221> PHOSPHORYLATION

<222> (7)

<223> Xaa=phosphoserine

<400> 16

Lys Leu Ser Asn Val Xaa Xaa Thr Gly Ser Ile Asp
1 5 10

<210> 17
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Partial
peptide of Tau protein

<400> 17
Ser Pro Gln Leu Ala Thr Leu Ala Asp Glu Val Ser Ala Ser Leu Ala
1 5 10 15

Lys

<210> 18
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Partial
peptide of Tau protein

<400> 18
Ala Glu Pro Arg Gln Glu Phe Glu Val Met Glu Cys
1 5 10

<210> 19
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Partial
peptide of Tau protein

<400> 19
Val Ala Val Val Arg Thr Pro Pro Lys Ser Pro Ser Ser Ala Lys
1 5 10 15

<210> 20
<211> 34
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Partial
peptide of Tau protein

<400> 20

Ser Gly Asp Arg Ser Gly Tyr Ser Ser Pro Gly Ser Pro Gly Thr Pro
1 5 10 15

Gly Ser Arg Ser Arg Thr Pro Ser Leu Pro Thr Pro Pro Thr Arg Glu
20 25 30

Pro Lys

<210> 21

<211> 55

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Partial
peptide of Tau protein

<400> 21

Ala Lys Thr Asp His Gly Ala Glu Ile Val Tyr Lys Ser Pro Val Val
1 5 10 15

Ser Gly Asp Thr Ser Pro Arg His Leu Ser Asn Val Ser Ser Thr Gly
20 25 30

Ser Ile Asp Met Val Asp Ser Pro Gln Leu Ala Thr Leu Ala Asp Glu
35 40 45

Val Ser Ala Ser Leu Ala Lys
50 55

<210> 22

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Partial
peptide of Tau protein

<400> 22

Cys Lys Ser Lys Ile Gly Ser Thr Glu Asn Leu Lys
1 5 10